10 Years Later – Evolution of the Workshop

10th Annual Department of Energy LSO Workshop August 21, 2014

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LLNL-PRES-658974

This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344. Lawrence Livermore National Security, LLC

Historical Background (1990s)

- Ken Barat organizes Nonionizing Radiation Seminars at LBNL in early 90s
- Bay Area Laser Safety Officers is formed (1996)
 - Networking
 - Certification (2002-2003)





The seeds of the workshop were planted more than 20 years ago

Historical Background (2000s)

- Many laser accidents begin to occur at different DOE facilities (early 2000s)
 - 7 total in just over 3 years (late 2001 early 2005)
- Special Operations Report (SOR) on Laser Safety is released in February of 2005
 - LSO training is often generic in that it is one-time and "one size fits all." This
 training is often insufficient to prepare LSOs for the types of lasers used and
 potential hazards. Many LSOs have not had refresher training sufficient to
 keep pace with laser technology and changes in regulations, which hinders
 proper hazard evaluation.
 - Currently, laser safety at each laboratory is independent, and no networking occurs between LSOs. Best practices must be rediscovered by each LSO. Hence, there is a need for an ongoing communication mechanism across the entire Department (e.g., a working group or coordinating committee).

SOR cited weaknesses in training and communication across the complex



LSO Workshop is Born

- Ken moves from LBNL to LLNL (2002)
- Idea for Workshop
 - Meeting with Ed Moses (NIF&PS PAD) early 2005
 - NIF provides 100% support to Ken's efforts
 - Attendance of 93 (no fee)
 - Tours of NIF and Mercury
 - Success!!!
 - What now?



A citing from the SOR was remedied to an unimaginable level of success





- Jack Preses/Chris Weilandics offer to host the next workshop?
- Attendance is 80 with no fee (optional dinner \$50)
- Tours:



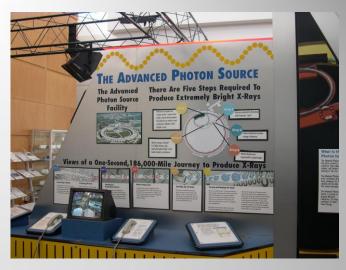
The "Annual" DOE Laser Safety Officer Workshop is born





- Bruce Murdoch hosts
- Attendance 118
- Medical Lasers
- Tours
- Optional Dinner







Attendance increases by nearly 50%





First Class Photo (2007)







- John Snell (SNL) cohosts with Connon Odom/Joanna Casson (LANL) (2008)
- First fee charged \$50
- Attendance 161
- Evening BBQ
- Tours





- Karen Kelly hosts (2009)
- Laser Safety Subgroup reforms
- **Medical Laser Sessions**
- Attendance 88
- **Phillies Game**







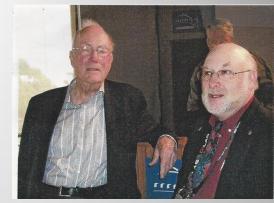


Academia throws their hat in the ring



- Ken Barat hosts (2010)
- Charles Townes (our first Nobel Prize speaker)
 - Tour of Advanced Light Source
 - Laser turns 50
 - Attendance 165
 - Fee raised to \$75









Massachusetts Institute of Technology

- Judy Reilly hosts (2011)
- Jeff Hecht (Keynote)
- Red Sox Game (Kentek)
- MIT Museum Night











- Operation of Workshop transferred from Ken (retiring) to EFCOG late 2011
 - Mike Woods hosts
 - Attendance 153
 - Tour LCLS







The Laser Safety Subgroup (EFCOG) gives Ken Appreciation Award





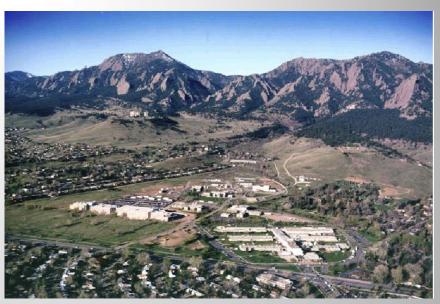
Excellent show put on by SLAC at first EFCOG run Workshop



NST National Institute of Standards and Technology U.S. Department of Commerce

- Josh Hadler hosts (2013)
 - Attendance 125
 - Keynote-Dave Wineland (2012 Nobel Laureate in Physics)
 - Brewery tour (Laservision)
 - Fee \$150
- **Mother Nature**









- LLNL Attendance
- Insert Class Photo ###

Have we met our Goal?

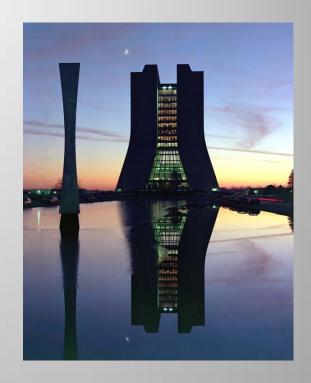
- ✓ Practical Laser Safety by and for Laser Safety Officers
- Hosted by different and unique facilities
- Chance to meet face-to-face with Exhibitors
- ✓ A forum for discussion.
- Networking





Where do we go from here?

- Difficult to assemble every year
 - Competing with ILSC
 - Travel budgets are tight
- Will meet on off years of ILSC
- Next ILSC March 2015 Albuquerque, NM
- Next LSO Workshop will be held in 2016





Acknowledgements

- Ken Barat
 - For the historical knowledge on the history
- Connon Odom
 - For photographical documentation of events
- All previous hosts
 - Considerable efforts made to put on great workshop and showcasing your particular Facilities.



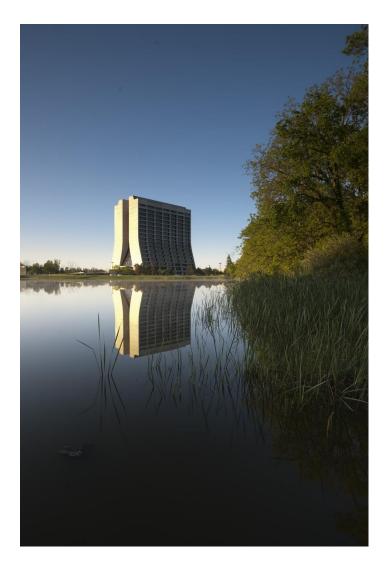
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- lead the nation in the development of particle colliders and their use for scientific discovery
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- performing pioneering research with national and global partners
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Fermilab's Holometer experiment will use the most sensitive laser interferometer ever built.

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